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60/387,231 7 June 2002 (07.06.2002) US
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- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **EEF1A2 FOR USE IN THE PROGNOSIS, DIAGNOSIS AND TREATMENT OF CANCER**

(57) Abstract: Methods and kits for diagnosing and prognosticating cancer via detection of *EEF1A2* and/or *EEF1A2* are provided. Also provided are methods for treating cancer via inhibition of expression and/or activity of *EEF1A2* and screening assays to identify new anticancer agents based upon their ability to inhibit *EEF1A2* expression and/or activity. The methods and kits of the present invention are particularly useful in the prognosis, diagnosis and treatment of ovarian, breast and colorectal cancer.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GR 03/00865

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12Q1/68 G01N33/53 G01N33/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 09655 A (FISHER PAUL B; UNIV COLUMBIA (US)) 12 March 1998 (1998-03-12) page 1-3; figures 1-5 page 17 -page 22; claims 1-26; example 2 ---	1-29
Y	WO 00 71708 A (BOURDILLON MARIE CLAUDE; INST NAT SANTE RECH MED (FR); MCGREGOR JO) 30 November 2000 (2000-11-30) page 1 -page 2 page 14 ----- -/--	1-29



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

22 October 2003

Date of mailing of the international search report

05/11/2003

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 03/00865

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>GOPALKRISHNAN RAHUL V ET AL: "Translational infidelity and human cancer: Role of the PTI-1 oncogene" INTERNATIONAL JOURNAL OF BIOCHEMISTRY AND CELL BIOLOGY, vol. 31, no. 1, January 1999 (1999-01), pages 151-162, XP002257186 ISSN: 1357-2725 the whole document</p>	1-29
Y	<p>-----</p> <p>KUANG WAYNE W ET AL: "Differential screening and suppression subtractive hybridization identified genes differentially expressed in an estrogen receptor-positive breast carcinoma cell line" NUCLEIC ACIDS RESEARCH, vol. 26, no. 4, 15 February 1998 (1998-02-15), pages 1116-1123, XP002257188 ISSN: 0305-1048 abstract; table 2</p>	1-29
Y	<p>-----</p> <p>EDMONDS B T ET AL: "Elongation factor-1 alpha is an overexpressed actin binding protein in metastatic rat mammary adenocarcinoma." JOURNAL OF CELL SCIENCE. ENGLAND NOV 1996, vol. 109 (Pt 11), November 1996 (1996-11), pages 2705-2714, XP002257189 ISSN: 0021-9533 abstract page 2707 -page 2708; table 2</p>	1-29
Y	<p>-----</p> <p>CORMIER PATRICK: "Translation factors: From protein synthesis to cell cycle regulation and tumorigenesis" M-S (MEDECINE SCIENCES), vol. 16, no. 3, March 2000 (2000-03), pages 378-385, XP009018839 ISSN: 0767-0974 abstract page 382, column 3, paragraph 3 -page 383, column 2</p> <p>----- -/--</p>	1-29

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 03/00865

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	LUND A ET AL: "Assignment of human elongation factor 1-alpha genes: EEFTA maps to chromosome 6q14 and EEF1A2 to 20q13.3" GENOMICS, vol. 36, no. 2, 1996, pages 359-361, XP002257191 ISSN: 0888-7543 cited in the application the whole document ---	1-29
A	BISCHOFF C ET AL: "The Human Elongation Factor 1 A-2 Gene (EEF1A2): Complete Sequence and Characterization of Gene Structure and Promoter Activity" GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 68, no. 1, 15 August 2000 (2000-08-15), pages 63-70, XP004437861 ISSN: 0888-7543 the whole document ---	1-29
P,X	ANAND NISHA ET AL: "Gene encoding protein elongation factor EEF1A2 is a putative oncogene in ovarian cancer" NATURE GENETICS, vol. 31, no. 3, July 2002 (2002-07), pages 301-305, XP002257192 ISSN: 1061-4036 the whole document -----	1-29

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 03/00865

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 4 to 6 and claims 24 to 28 embrace methods of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR 03/00865

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9809655	A	12-03-1998	AU	4644297 A		26-03-1998
			EP	0925074 A1		30-06-1999
			WO	9809655 A1		12-03-1998
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